IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	Confirmation No. 9944
	)	
CHOO *et al.*	)	Group Art Unit: 1648
	)	
Serial No.: 10/580,050	)	Examiner: TBA
	)	
I.A. Filed: November 19, 2004	)	Atty. Docket No. 51835-US-PCT

For: **METHODS AND REAGENTS FOR TREATING, PREVENTING, AND DIAGNOSING BUNYAVIRUS INFECTION**

PETITION UNDER 37 C.F.R. § 1.181 TO WITHDRAW

HOLDING OF ABANDONMENT

U.S. Patent and Trademark Office
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Dear Sir:

Applicants petition the Director under 37 C.F.R. § 1.181 to withdraw the holding of abandonment of the application referenced above as set forth in the Notification of Abandonment mailed May 14, 2009. Applicants believe no fee is due in connection with this petition. If a fee is due, please charge our Deposit Account No. 19-0733.

Statement of Facts

1.   The present application (Serial No. 10/580,050) is a national phase application of PCT/US2004/039333 filed November 19, 2004. Serial No. 10/580,050 was filed by express mail on May 19, 2006.

2.   A Notification of Missing Requirements requesting an executed declaration was mailed on January 16, 2007. The executed declaration was filed by express mail on August 10, 2007 together with payment for a five-month extension of time.

3.   On January 31, 2008 Applicants filed by express mail a preliminary amendment and paper and computer readable forms of a sequence listing. The preliminary amendment inserted sequence identifiers into the specification and directed entry of the paper copy of the sequence listing into the specification. Exhibit 1 is a copy of Applicants' sequence listing transmittal letter downloaded from PAIR. The transmittal letter bears a U.S. Patent and Trademark Office receipt stamp of January 31, 2008.

4.   Exhibit 2 is a copy of a SCORE placeholder sheet for IFW content downloaded from PAIR. The placeholder sheet is dated January 31, 2008 and indicates receipt of the computer readable form of the sequence listing.

5.   Exhibit 3 is a printout of PAIR's "Supplemental Content" view for this application.

6.   Exhibit 4 is a copy of the contents of the sequence listing downloaded from the Supplemental Content. tab in PAIR

7.   A Notice to Comply with sequence listing requirements was mailed on February 18, 2009. The notice asserted that a computer readable form of the sequence listing had not been submitted. The Notice provided a two-month initial deadline to respond (*i.e.*, until April 18,

2

2009). The Notice also indicated that extensions of time were available under 37 C.F.R. § 1.136 up to six months from the mailing date of the notice (*i.e.*, until August 18, 2009).

8.   On March 20, 2009 Applicants filed by express mail a response to the Notice to Comply. The response noted that the computer readable form of the sequence listing had been filed on January 31, 2008. The response also stated that copies of the sequence listing and preliminary amendment filed on January 31, 2008 were being resubmitted; however, PAIR does not indicate that the sequence listing and preliminary amendment were re-submitted with the response.

9.   A Notification of Abandonment was mailed on May 14, 2009, less than one month after the initial deadline for responding to the Notice to Comply. The Notification states that the application is abandoned because "[t]he sequence requirements still haven't been met."

Point to be Reviewed

The point to be reviewed is whether the holding of abandonment should be withdrawn because the computer readable form of the sequence listing was filed on January 31, 2008.

Action Requested

Applicant requests that the holding of abandonment of this application be withdrawn.

Argument

The Notification of Abandonment appears to have been issued in error. As an initial matter, the Notification of Abandonment was mailed before the end of the statutory period for responding to the Notice to Comply.

Moreover, the Notice to Comply itself was erroneously issued. First, the U.S. Patent and Trademark Office's own records indicate that the computer readable form of the sequence listing was filed on January 31, 2008 (Exhibit 2). Second, the computer readable form of the sequence listing actually is present under the "Supplemental Content" tab for this application in PAIR (Exhibits 3 and 4). Third, the contents of the computer readable form downloaded from PAIR appears to contain all 191 sequences present in the paper form of the sequence listing filed on January 31, 2008 (Exhibit 4).

Applicants respectfully request that the holding of abandonment of this application be withdrawn.

Respectfully submitted,

BANNER & WITCOFF, LTD.
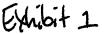
/Lisa M. Hemmendinger/

Date: May 27, 2009

By: _____

Lisa M. Hemmendinger
Registration No. 42,653

Customer No. 22907

IAPU/Rec'd PCT 31 JAN 2008

PATENT APPLICATION
U.S. Appln. No. 10/580,050
International Application No. PCT/US04/39333
Attorney Docket No. PP021454.0004

Exhibit 1

Express Mail Label No.: <u>ED 954551195 US</u>   Date: <u>January 31, 2008</u>

IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

In Re Application of: Qui-Lim Choo	
U.S. Appln. No.: 10/580,050	
Intl. Appln. No.: PCT/US04/39333	Confirmation No.: 7391
I.A. Filing Date: 11/19/2004	Group Art Unit: To Be Assigned
Priority Date: 11/19/2003	Examiner: To Be Assigned
Title: METHODS AND REAGENTS FOR TREATING, PREVENTING AND DIAGNOSING *BUNYAVIRUS* INFECTION	

TRANSMITTAL LETTER

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed herewith are the following documents to complete the above-identified application:

1. **TRANSMITTAL OF SEQUENCE LISTING INCLUDING:**
   a. Statements Under 37 C.F.R. 1.821(f–g), including statement specifically directing entry of the sequence listing into the application.
   b. Paper Copy of the Sequence Listing (60 pages).
   c. Compact Disk Containing CRF Copy of Sequence Listing (1 CD).

2. **PRELIMINARY AMENDMENT.**

3. **RETURN RECEIPT POSTCARD.**

The Commissioner is hereby authorized to charge any deficiency in fees or credit any overpayment associated with this communication and which may be required under 37 C.F.R. §§ 1.16 and 1.17 to Deposit Account No. 03-1664.

Respectfully submitted,

NOVARTIS VACCINES AND DIAGNOSTICS, INC.

Dated: _January 31, 2008_   By: _____

Helen Lee
Registration No. 39,270

Customer No. 27476
NOVARTIS VACCINES AND DIAGNOSTICS, INC.
Corporate Intellectual Property – R338
P.O. Box 8097
Emeryville, CA 94662-8097
Telephone: (510) 923-2192
Facsimile: (510) 655-3542

Exhibit 2

SCORE Placeholder Sheet for IFW Content

Application Number: 10580050   **Document Date:** 01/31/2008

The presence of this form in the IFW record indicates that the following document type was received in electronic format on the date identified above. This content is stored in the SCORE database.

- Sequence Listing

Since this was an electronic submission, there is no physical artifact folder, no artifact folder is recorded in PALM, and no paper documents or physical media exist. The TIFF images in the IFW record were created from the original documents that are stored in SCORE.

To access the documents in the SCORE database, refer to instructions developed by SIRA.

At the time of document entry (noted above):
- Examiners may access SCORE content via the eDAN interface.
- Other USPTO employees can bookmark the current SCORE URL (http://es/ScoreAccessWeb/).
- External customers may access SCORE content via the Public and Private PAIR interfaces.

Form Revision Date: February 8, 2006

United States Patent and Trademark Office

Patent eBusiness

- Electronic Filing
- Patent Application Information (PAIR)
- Patent Ownership
- Fees
- Supplemental Resources & Support

Patent Information

Patent Guidance and General Info
- Codes, Rules & Manuals
- Employee & Office Directories
- Resources & Public Notices

Patent Searches

Patent Official Gazette
- Search Patents & Applications
- Search Biological Sequences
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10/580,050 **Methods and reagents for treating, preventing and diagnosing bunyavirus infection**

| Select New Case | Application Data | Transaction History | Image File Wrapper | Continuity Data | Address & Attorney/Agent | Supplemental Content | Display References |

Supplemental Content - Sequences

Use this page to view or retrieve a specific version of the Sequence Listing submitted for this application.

Previous

Version	Sub-Version	Number of Sequences	Sequence Name	Item Size	Item ID	Download
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If you need help:

- *Call the Patent Electronic Business Center at (866) 217-9197 (toll free) or e-mail EBC@uspto.gov for specific questions about Patent Application Information Retrieval (PAIR).*
- *Send general questions about USPTO programs to the USPTO Contact Center (UCC).*
- *If you experience technical difficulties or problems with this application, please report them via e-mail to Electronic Business Support or call 1 800-786-9199.*

You can suggest USPTO webpages or material you would like featured on this section by E-mail to the webmaster@uspto.gov. While we cannot promise to accommodate all requests, your suggestions will be considered and may lead to other improvements on the website.

Exhibit 4

<110> CHOO, Qui-Lim
       HOUGHTON, Michael
       SCOTT, Elizabeth
       WEINER, Amy

<120> METHODS AND REAGENTS FOR TREATING, PREVENTING AND DIAGNOSING
       BUNYAVIRUS INFECTION

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<141> 2006-05-19

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Arg His Asp Tyr Phe Gly Arg Glu Leu Cys Lys Ser Leu Asn Ile Glu
        35                  40                  45

Tyr Arg Asn Asp Val Pro Phe Val Asp Ile Ile Leu Asp Ile Arg Pro
    50                  55                  60

Glu Val Asp Pro Leu Thr Ile Asp Ala Pro His Ile Thr Pro Asp Asn
65                  70                  75                  80

Tyr Leu Tyr Ile Asn Asn Val Leu Tyr Ile Ile Asp Tyr Lys Val Ser
                85                  90                  95

Val Ser Asn Glu Ser Ser Val Ile Thr Tyr Asp Lys Tyr Tyr Glu Leu
            100                 105                 110
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Thr Arg Asp Ile Ser Asp Arg Leu Ser Ile Pro Ile Glu Ile Val Ile
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Val Arg Ile Asp Pro Val Ser Lys Asp Leu His Ile Asn Ser Asp Arg
        130   135   140

Phe Lys Glu Leu Tyr Pro Thr Ile Val Val Asp Ile Asn Phe Asn Gln
145   150   155   160

Phe Phe Asp Leu Lys Gln Leu Leu Tyr Glu Lys Phe Gly Asp Asp Glu
                165   170   175

Glu Phe Leu Leu Lys Val Ala His Gly Asp Phe Thr Leu Thr Ala Pro
        180   185   190

Trp Cys Lys Thr Gly Cys Pro Glu Phe Trp Lys His Pro Ile Tyr Lys
        195   200   205

Glu Phe Lys Met Ser Met Pro Val Pro Glu Arg Arg Leu Phe Glu Glu
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Ser Val Lys Phe Asn Ala Tyr Glu Ser Glu Arg Trp Asn Thr Asn Leu
225   230   235   240

Val Lys Ile Arg Glu Tyr Thr Lys Lys Asp Tyr Ser Glu His Ile Ser
        245   250   255

Lys Ser Ala Lys Asn Ile Phe Leu Ala Ser Gly Phe Tyr Lys Gln Pro
        260   265   270

Asn Lys Asn Glu Ile Ser Glu Gly Trp Thr Leu Met Val Glu Arg Val
        275   280   285

Gln Asp Gln Arg Glu Ile Ser Lys Ser Leu His Asp Gln Lys Pro Ser
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Ile His Phe Ile Trp Gly Ala His Asn Pro Gly Asn Ser Asn Asn Ala
305   310   315   320

Thr Phe Lys Leu Ile Leu Leu Ser Lys Ser Leu Gln Ser Ile Lys Gly
                325   330   335

Ile Ser Thr Tyr Thr Glu Ala Phe Lys Ser Leu Gly Lys Met Met Asp
        340   345   350

Ile Gly Asp Lys Ala Ile Glu Tyr Glu Glu Phe Cys Met Ser Leu Lys
        355   360   365

Ser Lys Ala Arg Ser Ser Trp Lys Gln Ile Met Asn Lys Lys Leu Glu
        370   375   380

Pro Lys Gln Ile Asn Asn Ala Leu Val Leu Trp Glu Gln Gln Phe Met
385   390   395   400

Val Asn Asn Asp Leu Ile Asp Lys Ser Glu Lys Leu Lys Leu Phe Lys
                405   410   415

Asn Phe Cys Gly Ile Gly Lys His Lys Gln Phe Lys Asn Lys Met Leu
        420   425   430

Glu Asp Leu Glu Val Ser Lys Pro Lys Ile Leu Asp Phe Asp Asp Ala
        435   440   445

Asn Met Tyr Leu Ala Ser Leu Thr Met Met Glu Gln Ser Lys Lys Ile
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Leu Ser Lys Ser Asn Gly Leu Lys Pro Asp Asn Phe Ile Leu Asn Glu
465   470   475   480

Phe Gly Ser Lys Ile Lys Asp Ala Asn Lys Glu Thr Tyr Asp Asn Met
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His Lys Ile Phe Glu Thr Arg Tyr Trp Gln Cys Ile Ser Asp Phe Ser
        500   505   510

Thr Leu Met Lys Asn Ile Leu Ser Val Ser Gln Tyr Asn Arg His Asn
        515   520   525

Thr Phe Arg Ile Ala Met Cys Ala Asn Asn Asn Val Phe Ala Ile Val
    530   535   540

Phe Pro Ser Ala Asp Ile Lys Thr Lys Lys Ala Thr Val Val Tyr Ser
545   550   555   560

Ile Ile Val Leu His Lys Glu Glu Glu Asn Ile Phe Asn Pro Gly Cys
            565   570   575

Leu His Gly Thr Phe Lys Cys Met Asn Gly Tyr Ile Ser Ile Ser Arg
        580   585   590

Ala Ile Arg Leu Asp Lys Glu Arg Cys Gln Arg Ile Val Ser Ser Pro
        595   600   605

Gly Leu Phe Leu Thr Thr Cys Leu Leu Phe Lys His Asp Asn Pro Thr
    610   615   620

Leu Val Met Ser Asp Ile Met Asn Phe Ser Ile Tyr Thr Ser Leu Ser
625   630   635   640

Ile Thr Lys Ser Val Leu Ser Leu Thr Glu Pro Ala Arg Tyr Met Ile
            645   650   655

Met Asn Ser Leu Ala Ile Ser Ser Asn Val Lys Asp Tyr Ile Ala Glu
            660   665   670

Lys Phe Ser Pro Tyr Thr Lys Thr Leu Phe Ser Val Tyr Met Thr Arg
        675   680   685

Leu Ile Lys Asn Ala Cys Phe Asp Ala Tyr Asp Gln Arg Gln Arg Val
    690   695   700

Gln Leu Arg Asp Ile Tyr Leu Ser Asp Tyr Asp Ile Thr Gln Lys Gly
705   710   715   720

Ile Lys Asp Asn Arg Glu Leu Thr Ser Ile Trp Phe Pro Gly Ser Val
              725   730   735

Thr Leu Lys Glu Tyr Leu Thr Gln Ile Tyr Leu Pro Phe Tyr Phe Asn
              740   745   750

Ala Lys Gly Leu His Glu Lys His His Val Met Val Asp Leu Ala Lys
          755   760   765

Thr Ile Leu Glu Ile Glu Cys Glu Gln Arg Glu Asn Ile Lys Glu Ile
    770   775   780

Trp Ser Thr Asn Cys Thr Lys Gln Thr Val Asn Leu Lys Ile Leu Ile
785   790   795   800

His Ser Leu Cys Lys Asn Leu Leu Ala Asp Thr Ser Arg His Asn His
              805   810   815

Leu Arg Asn Arg Ile Glu Asn Arg Asn Asn Phe Arg Arg Ser Ile Thr
              820   825   830

Thr Ile Ser Thr Phe Thr Ser Ser Lys Ser Cys Leu Lys Ile Gly Asp
          835   840   845

Phe Arg Lys Glu Lys Glu Leu Gln Ser Val Lys Gln Lys Lys Ile Leu
    850   855   860

Glu Val Gln Ser Arg Lys Met Arg Leu Ala Asn Pro Met Phe Val Thr
865   870   875   880

Asp Glu Gln Val Cys Leu Glu Val Gly His Cys Asn Tyr Glu Met Leu
              885   890   895

Arg Asn Ala Met Pro Asn Tyr Thr Asp Tyr Ile Ser Thr Lys Val Phe
          900   905   910

Asp Arg Leu Tyr Glu Leu Leu Asp Lys Gly Val Leu Thr Asp Lys Pro
          915   920   925

Val Ile Glu Gln Ile Met Asp Met Met Val Asp His Lys Lys Phe Tyr
    930   935   940

Phe Thr Phe Phe Asn Lys Gly Gln Lys Thr Ser Lys Asp Arg Glu Ile
945   950   955   960

Phe Val Gly Glu Tyr Glu Ala Lys Met Cys Met Tyr Ala Val Glu Arg
              965   970   975

Ile Ala Lys Glu Arg Cys Lys Leu Asn Pro Asp Glu Met Ile Ser Glu
          980   985   990

Pro Gly Asp Gly Lys Leu Lys Val Leu Glu Gln Lys Ser Glu Gln Glu
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Ile Arg Phe Leu Val Glu Thr Thr Arg Gln Lys Asn Arg Glu Ile
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Asp Glu  Ala Ile Glu Ala Leu  Ala Ala Glu Gly Tyr  Glu Ser Asn
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Leu Glu  Lys Ile Glu Lys Leu  Ser Leu Gly Lys Ala  Lys Gly Leu
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Lys Met  Glu Ile Asn Ala Asp  Met Ser Lys Trp Ser  Ala Gln Asp
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Val Phe  Tyr Lys Tyr Phe Trp  Leu Ile Ala Leu Asp  Pro Ile Leu
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Tyr Pro  Gln Glu Lys Glu Arg  Ile Leu Tyr Phe Met  Cys Asn Tyr
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Met Asp  Lys Glu Leu Ile Leu  Pro Asp Glu Leu Leu  Phe Asn Leu
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Leu Asp  Gln Lys Val Ala Tyr  Gln Asn Asp Ile Ile  Ala Thr Met
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Thr Asn  Gln Leu Asn Ser Asn  Thr Val Leu Ile Lys  Arg Asn Trp
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Leu Gln  Gly Asn Phe Asn Tyr  Thr Ser Ser Tyr Val  His Ser Cys
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Ala Met  Ser Val Tyr Lys Glu  Ile Leu Lys Glu Ala  Ile Thr Leu
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Leu Asp  Gly Ser Ile Leu Val  Asn Ser Leu Val His  Ser Asp Asp
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Asn Gln  Thr Ser Ile Thr Ile  Val Gln Asp Lys Met  Glu Asn Asp
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Lys Ile  Ile Asp Phe Ala Met  Lys Glu Phe Glu Arg  Ala Cys Leu
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Thr Phe  Gly Cys Gln Ala Asn  Met Lys Lys Thr Tyr  Val Thr Asn
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Cys Ile  Lys Glu Phe Val Ser  Leu Phe Asn Leu Tyr  Gly Glu Pro
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Phe Ser  Ile Tyr Gly Arg Phe  Leu Leu Thr Ser Val  Gly Asp Cys
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Ala Tyr  Ile Gly Pro Tyr Glu  Asp Leu Ala Ser Arg  Ile Ser Ser
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Ala Gln  Thr Ala Ile Lys His  Gly Cys Pro Pro Ser  Leu Ala Trp
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Val Ser  Ile Ala Ile Ser His  Trp Met Thr Ser Leu  Thr Tyr Asn
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Met Leu Pro Gly Gln Ser Asn Asp Pro Ile Asp Tyr Phe Pro Ala
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Glu Asn Arg Lys Asp Ile Pro Ile Glu Leu Asn Gly Val Leu Asp
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Ala Pro Leu Ser Met Ile Ser Thr Val Gly Leu Glu Ser Gly Asn
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Leu Tyr Phe Leu Ile Lys Leu Leu Ser Lys Tyr Thr Pro Val Met
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Gln Lys Arg Glu Ser Val Val Asn Gln Ile Ala Glu Val Lys Asn
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Trp Lys Val Glu Asp Leu Thr Asp Asn Glu Ile Phe Arg Leu Lys
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Ile Leu Arg Tyr Leu Val Leu Asp Ala Glu Met Asp Pro Ser Asp
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Ile Met Gly Glu Thr Ser Asp Met Arg Gly Arg Ser Ile Leu Thr
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Pro Arg Lys Phe Thr Thr Ala Gly Ser Leu Arg Lys Leu Tyr Ser
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Phe Ser Lys Tyr Gln Asp Arg Leu Ser Ser Pro Gly Gly Met Val
    1445   1450   1455

Glu Leu Phe Thr Tyr Leu Leu Glu Lys Pro Glu Leu Leu Val Thr
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Lys Gly Glu Asp Met Lys Asp Tyr Met Glu Ser Val Ile Phe Arg
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Tyr Asn Ser Lys Arg Phe Lys Glu Ser Leu Ser Ile Gln Asn Pro
    1490   1495   1500

Ala Gln Leu Phe Ile Glu Gln Ile Leu Phe Ser His Lys Pro Ile
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Ile Asp Phe Ser Gly Ile Arg Asp Lys Tyr Ile Asn Leu His Asp
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Ser Arg Ala Leu Glu Lys Glu Pro Asp Ile Leu Gly Lys Val Thr
    1535   1540   1545

Phe Thr Glu Ala Tyr Arg Leu Leu Met Arg Asp Leu Ser Ser Leu
    1550   1555   1560

Glu Leu Thr Asn Asp Asp Ile Gln Val Ile Tyr Ser Tyr Ile Ile
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Leu Asn Asp Pro Met Met Ile Thr Ile Ala Asn Thr His Ile Leu
    1580   1585   1590

Ser Ile Tyr Gly Ser Pro Gln Arg Arg Met Gly Met Ser Cys Ser
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Thr Met Pro Glu Phe Arg Asn Leu Lys Leu Ile His His Ser Pro
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Ala Leu Val Leu Arg Ala Tyr Ser Lys Asn Asn Pro Asp Ile Gln
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Gly Ala Asp Pro Thr Glu Met Ala Arg Asp Leu Val His Leu Lys
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Glu Phe Val Glu Asn Thr Asn Leu Glu Glu Lys Met Lys Val Arg
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Ile Ala Ile Asn Glu Ala Glu Lys Gly Gln Arg Asp Ile Val Phe
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Glu Leu Lys Glu Met Thr Arg Phe Tyr Gln Val Cys Tyr Glu Tyr
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Val Lys Ser Thr Glu His Lys Ile Lys Val Phe Ile Leu Pro Thr
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Lys Ser Tyr Thr Thr Thr Asp Phe Cys Ser Leu Met Gln Gly Asn
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Leu Ile Lys Asp Lys Glu Trp Tyr Thr Val His Tyr Leu Lys Gln
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Ile Leu Ser Gly Gly His Lys Ala Ile Met Gln His Asn Ala Thr
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Ser Glu Gln Asn Ile Ala Phe Glu Cys Phe Lys Leu Ile Thr His
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Phe Ala Asp Ser Phe Ile Asp Ser Leu Ser Arg Ser Ala Phe Leu
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Gln Leu Ile Ile Asp Glu Phe Ser Tyr Lys Asp Val Lys Val Ser
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Lys Leu Tyr Asp Ile Ile Lys Asn Gly Tyr Asn Arg Thr Asp Phe
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Ile Pro Leu Leu Phe Arg Thr Gly Asp Leu Arg Gln Ala Asp Leu
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Asp Lys Tyr Asp Ala Met Lys Ser His Glu Arg Val Thr Trp Asn
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Asp Trp Gln Thr Ser Arg His Leu Asp Met Gly Ser Ile Asn Leu
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Thr Ile Thr Gly Tyr Asn Arg Ser Ile Thr Ile Ile Gly Glu Asp
    1865   1870   1875

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Asn Lys  Leu Thr Tyr Ala Glu  Leu Cys Leu Thr Arg  Lys Thr Pro
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Glu Asn  Ile Thr Ile Ser Gly  Arg Lys Leu Leu Gly  Ala Arg His
    1895                 1900                 1905

Gly Leu  Lys Phe Glu Asn Met  Ser Lys Ile Gln Thr  Tyr Pro Gly
    1910                 1915                 1920

Asn Tyr  Tyr Ile Thr Tyr Arg  Lys Lys Asp Arg His  Gln Phe Val
    1925                 1930                 1935

Tyr Gln  Ile His Ser His Glu  Ser Ile Thr Arg Arg  Asn Glu Glu
    1940                 1945                 1950

His Met  Ala Ile Arg Thr Arg  Ile Tyr Asn Glu Ile  Thr Pro Val
    1955                 1960                 1965

Cys Val  Val Asn Val Ala Glu  Val Asp Gly Asp Gln  Arg Ile Leu
    1970                 1975                 1980

Ile Arg  Ser Leu Asp Tyr Leu  Asn Asn Asp Ile Phe  Ser Leu Ser
    1985                 1990                 1995

Arg Ile  Lys Val Gly Leu Asp  Glu Phe Ala Thr Ile  Lys Lys Ala
    2000                 2005                 2010

His Phe  Ser Lys Met Val Ser  Phe Glu Gly Pro Pro  Ile Lys Thr
    2015                 2020                 2025

Gly Leu  Leu Asp Leu Thr Glu  Leu Met Lys Ser Gln  Asp Leu Leu
    2030                 2035                 2040

Asn Leu  Asn Tyr Asp Asn Ile  Arg Asn Ser Asn Leu  Ile Ser Phe
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Ser Lys  Leu Ile Cys Cys Glu  Gly Ser Asp Asn Ile  Asn Asp Gly
    2060                 2065                 2070

Leu Glu  Phe Leu Ser Asp Asp  Pro Met Asn Phe Thr  Glu Gly Glu
    2075                 2080                 2085

Ala Ile  His Ser Thr Pro Ile  Phe Asn Ile Tyr Tyr  Ser Lys Arg
    2090                 2095                 2100

Gly Glu  Arg His Met Thr Tyr  Arg Asn Ala Ile Lys  Leu Leu Ile
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Glu Arg  Glu Thr Lys Ile Phe  Glu Glu Ala Phe Thr  Phe Ser Glu
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Asn Gly  Phe Ile Ser Pro Glu  Asn Leu Gly Cys Leu  Glu Ala Val
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Val Ser  Leu Ile Lys Leu Leu  Lys Thr Asn Glu Trp  Ser Thr Val
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His Met  Tyr His Ser Phe Asp  Val Pro Lys Cys Phe  Met Gly Asn
    2180                2185                2190

Pro Ile  Thr Arg Asp Met Asn  Trp Met Met Phe Arg  Glu Phe Ile
    2195                2200                2205

Asn Ser  Leu Pro Gly Thr Asp  Ile Pro Pro Trp Asn  Val Met Thr
    2210                2215                2220

Glu Asn  Phe Lys Lys Lys Cys  Ile Ala Leu Ile Asn  Ser Lys Leu
    2225                2230                2235

Glu Thr  Gln Arg Asp Phe Ser  Glu Phe Thr Lys Leu  Met Lys Lys
    2240                2245                2250

Glu Gly  Gly Arg Ser Asn Ile  Glu Phe Asp
    2255                2260
```

<210> 7
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Antisense primer derived from M segment of LACV genome

<400> 7
cgatcaacaa tccaatgata acaag   25

<210> 8
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Sense primer derived from M segment of LACV genome

<400> 8
tggaaatggc atcgagaata aa   22

<210> 9
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of LACV genome

<400> 9
attatctcac ctgtatcttg aattatgctg taagctggg   39
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<210> 10
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Sense primer derived from S segment of LACV genome

<400> 10
gtctcagcac gagttgatca gaa                                        23


<210> 11
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Antisense primer derived from S segment of LACV genome

<400> 11
aatggtcagc gggtagaatt tg                                         22


<210> 12
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from S segment of LACV genome

<400> 12
tggtgtagga tgggacagtg ggcca                                      25


<210> 13
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Sense primer derived from L segment of LACV genome

<400> 13
aaagtcgggc ttgacgaatt t                                          21


<210> 14
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Antisense primer derived from L segment of LACV genome

<400> 14
cggacagaaa ctctaaccca tca                                                    23


<210> 15
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from L segment of LACV genome

<400> 15
cccccaatta agacagggct cctcg                                                  25


<210> 16
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide specific for LACV sequence

<400> 16
catgaggcat tcaaattagg ttcta                                                  25


<210> 17
<211> 174
<212> PRT
<213> La Crosse virus

<400> 17
Val Met Cys Lys Ser Lys Gly Pro Ala Ser Ile Leu Ser Ile Ile Thr
1               5                   10                  15


Ala Val Leu Val Leu Thr Phe Val Thr Pro Ile Asn Ser Met Val Leu
            20                  25                  30


Gly Glu Ser Lys Glu Thr Phe Glu Leu Glu Asp Leu Pro Asp Asp Met
        35                  40                  45


Leu Glu Met Ala Ser Arg Ile Asn Ser Tyr Tyr Leu Thr Cys Ile Leu
    50                  55                  60


Asn Tyr Ala Val Ser Trp Gly Leu Val Ile Ile Gly Leu Leu Ile Gly
65                  70                  75                  80


Leu Leu Phe Lys Lys Tyr Gln His Arg Phe Leu Asn Val Tyr Ala Met
                85                  90                  95


Tyr Cys Glu Glu Cys Asp Met Tyr His Asp Lys Ser Gly Leu Lys Arg
            100                 105                 110


His Gly Asp Phe Thr Asn Lys Cys Arg Gln Cys Thr Cys Gly Gln Tyr
        115                 120                 125

Glu Asp Ala Ala Gly Leu Met Ala His Arg Lys Thr Tyr Asn Cys Leu
    130                 135                 140

Val Gln Tyr Lys Ala Lys Trp Met Met Asn Phe Leu Ile Ile Tyr Ile
145                 150                 155                 160

Phe Leu Ile Leu Ile Lys Asp Ser Ala Ile Val Val Gln Ala
                165                 170


<210>  18
<211>  968
<212>  PRT
<213>  La Crosse virus

<400>  18
Ala Gly Thr Asp Phe Thr Thr Cys Leu Glu Thr Glu Ser Ile Asn Trp
1               5                   10                  15

Asn Cys Thr Gly Pro Phe Leu Asn Leu Gly Asn Cys Gln Lys Gln Gln
                20                  25                  30

Lys Lys Glu Pro Tyr Thr Asn Ile Ala Thr Gln Leu Lys Gly Leu Lys
        35                  40                  45

Ala Ile Ser Val Leu Asp Val Pro Ile Ile Thr Gly Ile Pro Asp Asp
    50                  55                  60

Ile Ala Gly Ala Leu Arg Tyr Ile Glu Glu Lys Glu Asp Phe His Val
65                  70                  75                  80

Gln Leu Thr Ile Glu Tyr Ala Met Leu Ser Lys Tyr Cys Asp Tyr Tyr
                85                  90                  95

Thr Gln Phe Ser Asp Asn Ser Gly Tyr Ser Gln Thr Thr Trp Arg Val
                100                 105                 110

Tyr Leu Arg Ser His Asp Phe Glu Ala Cys Ile Leu Tyr Pro Asn Gln
        115                 120                 125

His Phe Cys Arg Cys Val Lys Asn Gly Glu Lys Cys Ser Ser Ser Asn
    130                 135                 140

Trp Asp Phe Ala Asn Glu Met Lys Asp Tyr Tyr Ser Gly Lys Gln Thr
145                 150                 155                 160

Lys Phe Asp Lys Asp Leu Asn Leu Ala Leu Thr Ala Leu His His Ala
                165                 170                 175

Phe Arg Gly Thr Ser Ser Ala Tyr Ile Ala Thr Met Leu Ser Lys Lys
                180                 185                 190

Ser Asn Asp Asp Leu Ile Ala Tyr Thr Asn Lys Ile Lys Thr Lys Phe
        195                 200                 205

Pro Gly Asn Ala Leu Leu Lys Ala Ile Ile Asp Tyr Ile Ala Tyr Met

```
        210                    215                    220

Lys Ser Leu Pro Gly Met Ala Asn Phe Lys Tyr Asp Glu Phe Trp Asp
225                 230                 235                 240

Glu Leu Leu Tyr Lys Pro Asn Pro Ala Lys Ala Ser Asn Leu Ala Arg
                245                 250                 255

Gly Lys Glu Ser Ser Tyr Asn Phe Lys Leu Ala Ile Ser Ser Lys Ser
                260                 265                 270

Ile Lys Thr Cys Lys Asn Val Lys Asp Val Ala Cys Leu Ser Pro Arg
            275                 280                 285

Ser Gly Ala Ile Tyr Ala Ser Ile Ile Ala Cys Gly Glu Pro Asn Gly
            290                 295                 300

Pro Ser Val Tyr Arg Lys Pro Ser Gly Gly Val Phe Gln Ser Ser Thr
305                 310                 315                 320

Asp Arg Ser Ile Tyr Cys Leu Leu Asp Ser His Cys Leu Glu Glu Phe
                325                 330                 335

Glu Ala Ile Gly Gln Glu Glu Leu Asp Ala Val Lys Lys Ser Lys Cys
            340                 345                 350

Trp Glu Ile Glu Tyr Pro Asp Val Lys Leu Ile Gln Glu Gly Asp Gly
            355                 360                 365

Thr Lys Ser Cys Arg Met Lys Asp Ser Gly Asn Cys Asn Val Ala Thr
    370                 375                 380

Asn Arg Trp Pro Val Ile Gln Cys Glu Asn Asp Lys Phe Tyr Tyr Ser
385                 390                 395                 400

Glu Leu Gln Lys Asp Tyr Asp Lys Ala Gln Asp Ile Gly His Tyr Cys
                405                 410                 415

Leu Ser Pro Gly Cys Thr Thr Val Arg Tyr Pro Ile Asn Pro Lys His
            420                 425                 430

Ile Ser Asn Cys Asn Trp Gln Val Ser Arg Ser Ser Ile Ala Lys Ile
            435                 440                 445

Asp Val His Asn Ile Glu Asp Ile Glu Gln Tyr Lys Lys Ala Ile Thr
    450                 455                 460

Gln Lys Leu Gln Thr Ser Leu Ser Leu Phe Lys Tyr Ala Lys Thr Lys
465                 470                 475                 480

Asn Leu Pro His Ile Lys Pro Ile Tyr Lys Tyr Ile Thr Ile Glu Gly
                485                 490                 495

Thr Glu Thr Ala Glu Gly Ile Glu Ser Ala Tyr Ile Glu Ser Glu Val
            500                 505                 510

Pro Ala Leu Ala Gly Thr Ser Ile Gly Phe Lys Ile Asn Ser Lys Glu
```

```
            515                    520                          525

Gly Lys His Leu Leu Asp Val Ile Ala Tyr Val Lys Ser Ala Ser Tyr
    530                    535                540

Ser Ser Val Tyr Thr Lys Leu Tyr Ser Thr Gly Pro Thr Ser Gly Ile
545                    550                555                    560

Asn Thr Lys His Asp Glu Leu Cys Thr Gly Pro Cys Pro Ala Asn Ile
                   565                570                    575

Asn His Gln Val Gly Trp Leu Thr Phe Ala Arg Glu Arg Thr Ser Ser
                   580                585                590

Trp Gly Cys Glu Glu Phe Gly Cys Leu Ala Val Ser Asp Gly Cys Val
                   595                600                605

Phe Gly Ser Cys Gln Asp Ile Ile Lys Glu Glu Leu Ser Val Tyr Arg
    610                    615                620

Lys Glu Thr Glu Glu Val Thr Asp Val Glu Leu Cys Leu Thr Phe Ser
625                    630                635                    640

Asp Lys Thr Tyr Cys Thr Asn Leu Asn Pro Val Thr Pro Ile Ile Thr
                   645                650                    655

Asp Leu Phe Glu Val Gln Phe Lys Thr Val Glu Thr Tyr Ser Leu Pro
                   660                665                670

Arg Ile Val Ala Val Gln Asn His Glu Ile Lys Ile Gly Gln Ile Asn
                   675                680                685

Asp Leu Gly Val Tyr Ser Lys Gly Cys Gly Asn Val Gln Lys Val Asn
    690                    695                700

Gly Thr Ile Tyr Gly Asn Gly Val Pro Arg Phe Asp Tyr Leu Cys His
705                    710                715                    720

Leu Ala Ser Arg Lys Glu Val Ile Val Arg Lys Cys Phe Asp Asn Asp
                   725                730                    735

Tyr Gln Ala Cys Lys Phe Leu Gln Ser Pro Ala Ser Tyr Arg Leu Glu
                   740                745                750

Glu Asp Ser Gly Thr Val Thr Ile Ile Asp Tyr Lys Lys Ile Leu Gly
                   755                760                765

Thr Ile Lys Met Lys Ala Ile Leu Gly Asp Val Lys Tyr Lys Thr Phe
    770                    775                780

Ala Asp Ser Val Asp Ile Thr Ala Glu Gly Ser Cys Thr Gly Cys Ile
785                    790                795                    800

Asn Cys Phe Glu Asn Ile His Cys Glu Leu Thr Leu His Thr Thr Ile
                   805                810                    815

Glu Ala Ser Cys Pro Ile Lys Ser Ser Cys Thr Val Phe His Asp Arg
```

```
                820                         825                         830
Ile Leu Val Thr Pro Asn Glu His Lys Tyr Ala Leu Lys Met Val Cys
        835                         840                         845

Thr Glu Lys Pro Gly Asn Thr Leu Thr Ile Lys Val Cys Asn Thr Lys
        850                         855                         860

Val Glu Ala Ser Met Ala Leu Val Asp Ala Lys Pro Ile Ile Glu Leu
865                         870                         875                         880

Ala Pro Val Asp Gln Thr Ala Tyr Ile Arg Glu Lys Asp Glu Arg Cys
                        885                         890                         895

Lys Thr Trp Met Cys Arg Val Arg Asp Glu Gly Leu Gln Val Ile Leu
                900                         905                         910

Glu Pro Phe Lys Asn Leu Phe Gly Ser Tyr Ile Gly Ile Phe Tyr Thr
                915                         920                         925

Phe Ile Ile Ser Ile Val Val Leu Leu Val Ile Ile Tyr Val Leu Leu
        930                         935                         940

Pro Ile Cys Phe Lys Leu Arg Asp Thr Leu Arg Lys His Glu Asp Ala
945                         950                         955                         960

Tyr Lys Arg Glu Met Lys Ile Arg
                965
```

<210> 19
<211> 92
<212> PRT
<213> La Crosse virus

<400> 19
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Met Met Ser His Gln Gln Val Gln Met Asp Leu Ile Leu Met Gln Gly
1                       5                       10                          15

Ile Trp Thr Ser Val Leu Lys Met Gln Asn Tyr Ser Thr Leu Leu Gln
                20                          25                          30

Leu Gly Ser Ser Ser Ser Met Pro Gln Arg Pro Arg Leu Leu Ser Arg
        35                          40                          45

Val Ser Gln Arg Gly Arg Leu Thr Leu Asn Leu Glu Ser Gly Arg Trp
        50                          55                          60

Arg Leu Ser Ile Ile Ile Phe Leu Glu Thr Gly Thr Thr Gln Leu Val
65                          70                          75                          80

Thr Thr Ile Leu Pro Ser Thr Asp Tyr Leu Gly Ile
                        85                          90
```

<210> 20
<211> 25

<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 20
ttgtacaagc tgctggaact gactt   25

<210> 21
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 21
tgtggtgccc gctatgatac tt   22

<210> 22
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 22
tgtggtgccc gctatgatac   20

<210> 23
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 23
ctgtggtgcc cgctatgata c   21

<210> 24
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 24
ctgtggtgcc cgctatgata   20

<210> 25
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 25
tctgtggtgc ccgctatgat a   21

<210> 26
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 26
tctgtggtgc ccgctatgat   20

<210> 27
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 27
gtgtctgtgg tgcccgctat   20

<210> 28
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 28
agacagtggc actgtgacca taa   23

<210> 29
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 29
agacagtggc actgtgacca taat   24

<210> 30
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 30
aagacagtgg cactgtgacc ata   23

<210> 31
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 31
aagacagtgg cactgtgacc ataa   24

<210> 32
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 32
aagacagtgg cactgtgacc ataat   25

<210> 33
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 33
gaagacagtg gcactgtgac cata   24

<210> 34
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from M segment of the LACV genome

<400> 34
agaagacagt ggcactgtga ccata   25

<210> 35
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 35
ctgggccatt tttgaacctc gggaa   25

<210> 36
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 36
ctgggccatt tttgaacctc ggga   24

<210> 37
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 37
cactgggcca tttttgaacc tcgg   24

<210> 38
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 38
ctgggccatt tttgaacctc ggg   23

<210> 39
<211> 25

<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 39
tgaacctcgg gaattgccaa aagca   25

<210> 40
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 40
tgcactgggc catttttgaa cctcg   25

<210> 41
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 41
actgggccat ttttgaacct cggga   25

<210> 42
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 42
actgggccat ttttgaacct cggg   24

<210> 43
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 43
tgggccattt ttgaacctcg gga   23

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<210>    44
<211>    25
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Probe derived from M segment of the LACV genome

<400>    44
tgggccattt ttgaacctcg ggaat                                          25


<210>    45
<211>    25
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Probe derived from M segment of the LACV genome

<400>    45
cactgggcca tttttgaacc tcggg                                          25


<210>    46
<211>    24
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Probe derived from M segment of the LACV genome

<400>    46
tgggccattt ttgaacctcg ggaa                                           24


<210>    47
<211>    23
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Probe derived from M segment of the LACV genome

<400>    47
tgtgcaagtc gaaagggcct gca                                            23


<210>    48
<211>    24
<212>    DNA
<213>    Artificial Sequence

<220>
<223>    Probe derived from M segment of the LACV genome
```

<400> 48
catgtgcaag tcgaaagggc ctgc   24

<210> 49
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 49
tcatgtgcaa gtcgaaaggg cctg   24

<210> 50
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 50
atgtgcaagt cgaaagggcc tgca   24

<210> 51
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 51
tcatgtgcaa gtcgaaaggg cctgc   25

<210> 52
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 52
taaccgcaga agggtcatgc accg   24

<210> 53
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 53
ccgcagaagg gtcatgcacc g   21

<210> 54
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 54
aaccgcagaa gggtcatgca ccg   23

<210> 55
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 55
ataaccgcag aagggtcatg caccg   25

<210> 56
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 56
accgcagaag ggtcatgcac cg   22

<210> 57
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 57
cagaagggtc atgcaccggc tgt   23

<210> 58
<211> 21

<212> DNA
<213> Artificial Sequence

<220>
<223> Probe derived from M segment of the LACV genome

<400> 58
cgcagaaggg tcatgcaccg g   21

<210> 59
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Reverse primer derived from M segment of the LACV genome

<400> 59
agtccccttta actgagttgc aatgt   25

<210> 60
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Reverse primer derived from M segment of the LACV genome

<400> 60
aaggttaaga ccagtaccgc agtaa   25

<210> 61
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Reverse primer derived from M segment of the LACV genome

<400> 61
gtgtgcaacg ttaattcgca at   22

<210> 62
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Reverse primer derived from M segment of the LACV genome

<400> 62
tgtggtgtgc aacgttaatt cg   22

<210> 63
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Reverse primer derived from M segment of the LACV genome

<400> 63
tcaattgtgg tgtgcaacgt ta   22

<210> 64
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Reverse primer derived from M segment of the LACV genome

<400> 64
tcaattgtgg tgtgcaacgt taa   23

<210> 65
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Reverse primer derived from M segment of the LACV genome

<400> 65
tcaattgtgg tgtgcaacgt t   21

<210> 66
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Reverse primer derived from M segment of the LACV genome

<400> 66
tcaattgtgg tgtgcaacgt taat   24

<210> 67
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 67
tctcagcacg agttgatcag aac   23

<210> 68
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 68
ctcagcacga gttgatcaga aca   23

<210> 69
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 69
tcagcacgag ttgatcagaa caa   23

<210> 70
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 70
tctacccgct gaccattgga at   22

<210> 71
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 71
gagtgtgatg tcggatttgg tgtt   24

<210> 72
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 72
agtctcagca cgagttgatc agaa   24

<210> 73
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 73
gtctcagcac gagttgatca gaac   24

<210> 74
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 74
tctcagcacg agttgatcag aaca   24

<210> 75
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 75
ctcagcacga gttgatcaga acaa   24

<210> 76
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 76
tcagcacgag ttgatcagaa ca   22

<210> 77
<211> 21

```
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Forward primer derived from the S segment of the LACV genome

<400>   77
tctacccgct gaccattgga a                                            21


<210>   78
<211>   22
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Forward primer derived from the S segment of the LACV genome

<400>   78
tacccgctga ccattggaat tc                                           22


<210>   79
<211>   24
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Forward primer derived from the S segment of the LACV genome

<400>   79
caagagtgtg atgtcggatt tggt                                         24


<210>   80
<211>   23
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Forward primer derived from the S segment of the LACV genome

<400>   80
aagagtgtga tgtcggattt ggt                                          23


<210>   81
<211>   23
<212>   DNA
<213>   Artificial Sequence

<220>
<223>   Forward primer derived from the S segment of the LACV genome

<400>   81
cctgatgcag ggtatatgga ctt                                          23
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<210> 82
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 82
tgcagggtat atggacttct gtgt   24

<210> 83
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 83
gatgagtctc agcacgagtt gatc   24

<210> 84
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer derived from the S segment of the LACV genome

<400> 84
gagtctcagc acgagttgat cagaa   25

<210> 85
<211> 25
<212> DNA
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<400> 104
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<210>   150
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